AMENDMENTS TO THE SPECIFICATION

Please insert the following section heading on page 1 after the title and before "Field of the Invention":

-- BACKGROUND OF THE INVENTION --

Please replace the paragraph on page 2, beginning "It is normally practiced....." with the following replacement paragraph:

-- It is normally practiced that a solution of a proton conductive solid polymer electrolyte as, for example, an isopropanol solution is added to the fuel electrode and the air electrode and dried at about 70°C after membrane formation of the fuel electrode and the air electrode. Moreover, joining of the fuel electrode and the air electrode to the proton conductive solid polymer electrolyte membrane is processed by hot press or by heated roll~~; the~~. The processing is done at a temperature of about 130-140°C with pressure of about 20-100 kg/cm^2. --

Please replace the paragraph on page 2, beginning "However, the above-mentioned methanol...." with the following replacement paragraph:

-- However, the above-mentioned methanol concentration is derived from a discussion based on a characteristic loss by permeation of methanol through the electrolyte membrane. It has been considered that, only if allowing that characteristic is reduced slightly, a fuel of a high concentration may be used particularly (see ~~Non-patent Document 1~~Proceedings of The Society of Automotive Engineers of Japan, No. 46-00, 20005062). --

Please replace the paragraph on page 2, beginning "Moreover, also in terms of...." with the following replacement paragraph:

-- Moreover, also in terms of cell operating temperature, since an output characteristic of the direct methanol fuel cell is originally low compared to the solid polymer electrolyte fuel cell, it is customarily operated at a temperature as high as about 90°C in order to attain a larger-output characteristic. Furthermore, as described in ~~Non-patent Document 2~~ the Journal of the Electrochemical Society (J. Electrochem. Soc.) Vol. 143, No. 1, (1996), L12, recently an operation at even high temperature of about 130°C is being examined in consideration of applications as a fuel for automobiles. --

Please DELETE the last three (3) lines on page 2, reading "[Non-patent Document 1]....[Non-patent Document 2]."

Please DELETE the first line on page 3, reading "Journal of....(1996), L12."

Please DELETE the sub-heading on page 3, reading "Object of the Invention."

Please DELETE the section heading on page 3, reading "Features of the Invention."

Please replace the section heading on page 8 to read as follows:

~~Embodiments~~Detailed Description of the Invention --

Please replace the paragraph on page 8, beginning "Here after, an example related to....." and continuing onto page 9, with the following replacement paragraph:

-- Hereafter, an example related to an operation of a direct methanol fuel cell, quality control, etc. will be described. For the electrolyte membrane, Nafion of Du Pont (Nafion is a registered trademark) that is a popular perfluorosulfonic acid electrolyte membrane was used. The air electrode was produced as followed: air electrode catalyst that was platinum fine powder as an air electrode material supported on carbon powder and PTFE fine powder were mixed with a solution of the perfluorosulfonic acid electrolyte (Nafion) to a paste, the paste was applied on carbon paper that was subjected to water repellent treatment by impregnating thereinto a PTFE (polytetrafluoroethylene) solution, as a gas diffusion layer, and the carbon paper was dried at 100°C. The fuel electrode was produced as followed: fuel electrode catalyst that was platinum-ruthenium fine powder as a fuel electrode material supported on carbon powder and PTFE fine powder were mixed with a solution of Nafion to a paste, the paste was applied on carbon paper that was subjected to water repellent treatment in the same manner as the air electrode, and the carbon paper was dried at 100°C. The air electrode and the fuel electrode was dried, stacked on the electrolyte membrane, and jointed by hot press at 130°C to obtain a MEA (Membrane Electrode Assembly). Inside the MEA, the Nafion solution in the electrode is dried to become in a resin state, and plays roles of providing proton conductivity to the electrode portion and combining the catalyst and PTFE fine powder, acting as a kind of binder. Moreover, perfluorosulfonic acid exists in the electrode in the form of fine powder, but it may exist in the form of a continuous membrane. Moreover, fine powder of platinum called platinum black may be used for the air electrode catalyst, and fine powder of platinum and ruthenium called platinum-ruthenium black may be used for the air electrode catalyst. --

Please DELETE the section heading on page 16, reading "Supplementary note."

Please DELETE the section heading on page 20, reading "Best Mode."

Please replace the paragraph on page 20, beginning "In this paragraph,....." with the following replacement paragraph:

-- In this paragraph, ~~the optimum example~~a preferred embodiment in terms of heat treatment will be shown. For the proton conductive solid polymer electrolyte membrane, Nafion 117 (Nafion is a registered trademark) was used. The composition of the fuel electrode was determined as follows: perfluorosulfonic acid resin of the fuel electrode was 30wt%; PTFE was 15wt%; the catalyst was 55wt%; and Pt-Ru was a weight ratio of 2:1 with a platinum group content of 40wt%. For the air electrode, perfluorosulfonic acid resin was 20wt%, PTFE was 15wt%, and Pt-C catalyst was 65wt% with a platinum group content of 40wt%. --